

**Appln No. 09/886,930**  
**Amdt date August 1, 2003**  
**Reply to Office action of N/A**

**REMARKS**

The present application is a continuation of application No. 09/525,506, now U.S. Patent 6,339,830, which is a continuation of application No. 874,754, now U.S. Patent 6,070,243.

By this amendment, applicants have canceled claims 44-58, 64, 66, 71-110 and 113-127 without prejudice and have added new claims 128-160 for prosecution in the present application. Accordingly, claims 128-160 are presently pending.

Pending claims 128, 135, 142, 151 and 152 are independent. One aspect of the invention is directed toward a user authentication method for a communication network having a plurality of nodes. The method includes entering on a first node first user identification information; transmitting to an authentication agent on a second node communicating with the first node over a LAN link the first user identification information; relaying from the authentication agent to an authentication server the first user identification information; comparing on the authentication server the first user identification information with user identification information in a database of user identification information; and transmitting from the authentication server to the authentication agent, if the first user identification information matches user identification information in the database of user identification information, information notifying the authentication agent that a user on the first node has been authenticated whereupon the authentication agent authorizes transmission on the second node of packets in data flows involving the first node.

Claim 128 is directed to a method in which first user identification information is transmitted from the first node to the authentication agent as part of a MAC-based authentication flow between an authentication client on the first node and the authentication agent. In this exemplary method, user identification information is directed between the authentication client and the authentication agent by a MAC layer service. This is distinguishable from authentication approaches that rely on network layer (e.g. IP) services to carry user identification information between an authentication client and an authentication agent, such as the alternative Telnet approach disclosed in the specification. The claimed method has the advantage, among others, over IP-based approaches of enabling network environments that require users to complete authentication before assigning IP addresses to the end systems they are using.

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Claim 135 is directed to a method in which the authorization comprises authorizing an interface to the LAN link to allow packets in data flows.

Claim 142 is directed to a method whereupon the authentication agent authorizes transmission on the second node of packets in data flows involving the first node and one or more nodes reachable by the first node via the second node and relays to the first node the notification information.

Claim 151 is directed to a method in which the packets that are transmitted pursuant to the authorization bypass the authentication agent. In this exemplary method, the packets in data flows involving the first node that are transmitted pursuant to the authentication agent's authorization are transmitted without resort to the authentication agent. This method is distinguishable from authentication approaches in which an authentication agent plays a role beyond authenticator, such as by supporting remote control of its node by an authenticated user, or by making forwarding/filtering decisions on packets in data flows involving an authenticated user's end system.

Claim 152 is directed toward a method in which the authentication server transmits to the authentication agent information identifying a VLAN for which the user has been authenticated whereupon the authentication agent authorizes transmission on the second node of packets in data flows that involve the first node and are within the VLAN.

Based on the foregoing, applicants respectfully request entry of the present amendment and consideration, examination and allowance of claims 128-160 of this application.

Respectfully submitted,

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